REMARKS

The Final Office Action mailed on October 24, 2001, has been received and reviewed. Claims 1-20 and 32-71 are currently pending in the application. Each of claims 1-20 and 32-71 stands rejected.

Reconsideration of the above-referenced application is respectfully requested.

Rejection Under 35 U.S.C. §§ 102/103(a)

Claims 1-6, 8-10, 32-38, and 68-70 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,792,594 to Brown et al. (hereinafter "Brown") or, in the alternative, as being rendered obvious by Brown.

A claim is anticipated under 35 U.S.C. § 102 only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Brown describes a method for repatterning semiconductor dice for use in flip-chip applications, as well as various products of the method. The method disclosed in Brown includes forming a first dielectric polymer layer on a dielectric layer of a semiconductor die that laterally surrounds and is located in the same plane as bond pads of the semiconductor die. The bond pads are then exposed through the first dielectric polymer layer. Next, a second dielectric

polymer layer is formed over the first dielectric polymer layer, and the bond pads and areas of the first dielectric polymer layer upon which circuit traces are to be carried through the second dielectric polymer layer are exposed through the second dielectric polymer layer.

The first dielectric polymer layer use in the method that is described in Brown includes a catalyst. A catalytic metal is also deposited onto the exposed bond pad. The catalyst of the first dielectric polymer layer and the catalytic metal of the exposed bond pad facilitate copper plating of the first dielectric polymer layer and of the bond pad. The exposed portion of each bond pad and the exposed portions of the first dielectric polymer layer are then plated with a metal, such as copper, that has better conductivity properties and is less corrosive than aluminum. Upon patterning the metal plating, conductive lines and contact pads are formed.

In one described example of the resulting semiconductor die, the new contact pad is formed directly above the corresponding bond pad and is separated from the active surface of the semiconductor die by the two dielectric polymer layers. Brown does not disclose that the formed structure is useful for anything other than to produce a precision interconnecting pattern and terminal bump pattern from metals other than aluminum so as to enhance the performance of a semiconductor die. Col. 2, lines 46-49 and 55-57.

Independent claim 1, as proposed to be amended herein, recites a contact that includes an intermediate conductive layer, an insulator component positioned "so as to at least thermally insulate [a] structure" of the semiconductor device, and an electrically conductive contact layer. The intermediate conductive layer of claim 1, as proposed to be amended contacts and is in electrical communication with *the structure*, which *is located beneath* a silicon-containing dielectric layer of the semiconductor device.

In Brown, the contact is positioned adjacent to a bond pad, which itself is located in the same plane and, thus, laterally surrounded by a dielectric layer of the semiconductor device. Thus, Brown does not teach, suggest, or expressly or inherently describe a contact that contacts a structure located beneath a silicon-containing dielectric layer of semiconductor device, as is recited in claim 1, as proposed to be amended.

Moreover, Brown lacks any teaching, suggestion, or express or inherent description that the insulator component of the contact thereof may be positioned so as to thermally insulate an underlying structure of the semiconductor device.

Therefore, Brown does not anticipate or teach or suggest each and every element of claim 1, as proposed to be amended. Accordingly, it is respectfully submitted that, under 35 U.S.C. §§ 102 and 103(a), claim 1, as proposed to be amended, is allowable over Brown.

Claims 2-6, 8-10, and 68 are each allowable, among other reasons, as depending from claim 1, which is allowable.

In addition, claim 10 is allowable since Brown lacks any teaching, suggestion, or express or inherent description that the contact thereof may include a contact layer comprising "a material having a melting temperature that is greater than a temperature required to switch a phase change component in electrical communication with the contact between a plurality of states." In fact, Brown does not teach, suggest, or expressly or inherently describe that the contact disclosed therein may be positioned adjacent to a structure that includes a phase change component or that the semiconductor device disclosed therein could even include a phase change component.

Claim 68 is additionally allowable since Brown does not teach, suggest, or expressly or inherently describe that an intermediate conductive layer or an electrically conductive contact layer of the contact described therein may abut a silicon-containing structure. Rather, the Brown discloses that the copper contacts thereof are in contact with a photodefinable resin layer.

Further, it is respectfully submitted that one of ordinary skill in the art would not have been motivated by either Brown or the knowledge that was generally available in the art before the filing date of the above-referenced application to modify the teachings of Brown in the manner that has been asserted to render unpatentable the subject matter recited in claim 68, as proposed to be amended. Specifically, the copper conductive portions of the contact of Brown could not contact a silicon oxide-containing structure, as recited in claim 68, as proposed to be amended, since, as is well known to those of skill in the art, copper reacts with silicon-containing

materials in a manner that causes the copper to blister or delaminate from adjacent silicon-containing structures, such as structure formed from a silicon oxide or a glass.

For the same reason, it is respectfully submitted that there would have been no reason for one of ordinary skill in the art to expect that modifying the teachings of Brown in the asserted manner would have been successful. A copper contact cannot abut a silicon oxide-containing protective layer without resulting in blistering or delamination of the copper contact from the protective layer.

It, therefore, appears that modification of the teachings of Brown in the asserted manner could only have been based upon the benefit of hindsight provided by the subject matter disclosed and recited in the claims of the above-referenced patent application.

With respect to independent claim 32, as proposed to be amended herein, it is understood that, as a product-by-process claim, the only limitations considered by the Office in determining patentability thereof are the product limitations.

Independent claim 32, as proposed to be amended, recites, among other things, a contact that includes "a contact layer and an intermediate conductive layer which partially contact one another and substantially envelop an insulator component . . ." *The contact "contacting a structure located beneath a silicon-containing dielectric layer* of the semiconductor device so as to at least thermally insulate underlying structure."

It is respectfully submitted that Brown does not teach, suggest, or expressly or inherently describe a contact that contacts a structure located *beneath a silicon-containing dielectric layer* of a semiconductor device. Rather, the teachings, suggestion, and description of Brown are limited to positioning the contact thereof in contact with a *bond pad* that is *in the same plane as* and, thus, laterally surrounded by *a dielectric layer* of a semiconductor device, and to contacts that are laterally offset from other structures of the semiconductor device.

Further, Brown fails to teach, suggest, or expressly or inherently describe that the contact thereof may be positioned so as to at least thermally insulate the contacted structure.

Therefore, Brown does not anticipate, teach, or suggest each and every element of claim 32, as proposed to be amended. Accordingly, under 35 U.S.C. §§ 102 and 103(a), claim 32, as proposed to be amended, is allowable over Brown.

Each of claims 33-38 and 70 is allowable, among other reasons, as depending from claim 32, which is allowable.

Claim 70, as proposed to be amended herein, is additionally allowable since Brown does not teach, suggest, or expressly or inherently describe that an intermediate conductive layer or an electrically conductive contact layer of the contact described therein may abut a major surface of the silicon-containing dielectric layer of the semiconductor device. Rather, the Brown discloses that the copper contacts thereof are in contact with an upper surface of a photodefinable resin layer.

Further, it is respectfully submitted that one of ordinary skill in the art would not have been motivated by either Brown or the knowledge that was generally available in the art before the filing date of the above-referenced application to modify the teachings of Brown in the manner that has been asserted to render unpatentable the subject matter recited in claim 70, as proposed to be amended. Specifically, the copper conductive portions of the contact of Brown could not contact a silicon oxide-containing structure, as recited in claim 70, as proposed to be amended, since, as is well known to those of skill in the art, copper reacts with silicon-containing materials in a manner that causes the copper to blister or delaminate from adjacent silicon-containing structures, such as structure formed from a silicon oxide or a glass.

For the same reason, it is respectfully submitted that there would have been no reason for one of ordinary skill in the art to expect that modifying the teachings of Brown in the asserted manner would have been successful. A copper contact cannot abut a silicon oxide-containing protective layer without resulting in blistering or delamination of the copper contact from the protective layer.

It, therefore, appears that modification of the teachings of Brown in the asserted manner could only have been based upon the benefit of hindsight provided by the subject matter disclosed and recited in the claims of the above-referenced patent application.

Accordingly, it is respectfully requested that the Office withdraw the rejections of claims 1-6, 8-10, 32-38, 68, and 70 under 35 U.S.C. §§ 102 and 103(a).

Rejections Under 35 U.S.C. § 103(a)

Again, M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Brown in View of Whitten

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of U.S. Patent 5,451,811 to Whitten et al. (hereinafter "Whitten").

Claim 11 is allowable, among other reasons, as depending from independent claim 1, which is allowable.

In addition, it is respectfully submitted that one of ordinary skill in the art would not have been motivated by Brown, Whitten, or the knowledge that was generally available in the art to combine the teachings of Brown and Whitten in the asserted manner. Specifically, Brown teaches an external contact for a semiconductor device, while the portion of Whitten that is relied upon is drawn to an embedded upper electrode of an antifuse.

For these reasons, it is respectfully requested that the 35 U.S.C. § 103(a) rejection of claim 11 be withdrawn.

Sasaki in View of Brown

Claims 7, 12-19, 39-54, 56-66, and 69-71 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese patent publication 04-045585 of Sasaki (hereinafter "Sasaki") in view of Brown.

Sasaki teaches a phase transition type memory element that includes a chalcogenide phase transition element between upper and lower electrodes. The memory element depicted in Sasaki appears to include a bond pad positioned over the upper electrode thereof, as well as over the phase transition element.

The teachings of Brown were summarized previously herein.

Independent claim 12, as proposed to be amended herein, recites a contact for a memory element that includes a phase change component. The contact of claim 12, as proposed to be amended, includes an insulator component, an intermediate conductive layer, and a contact layer. The intermediate conductive layer is located adjacent the insulator component and contacts the memory element, being in electrical and thermal communication therewith. The contact layer is also positioned adjacent the insulator component and in electrical contact with the intermediate conductive layer.

While it is acknowledged that Brown teaches a contact that includes upper and lower conductive layers with a thermally insulative element therebetween and that Sasaki teaches a memory element that includes a phase change component, it is respectfully submitted that there are several reasons that the Office has not met its burden of establishing a *prima facie* case as to the obviousness of independent claim 12.

First, it is respectfully submitted that one of ordinary skill in the art would not have been motivated by Sasaki, Brown, or the knowledge that was generally available in the art prior to the filing date of the referenced application to combine the teachings Sasaki and Brown in the manner that has been asserted. Specifically, one of ordinary skill in the art would not have been motivated to substitute the contact of Brown for the bond pad of Sasaki. This is because Brown teaches forming a contact that communicates with a bond pad, not replacing the bond pad with the contact. Thus, it appears that the most that one of ordinary skill in the art would have been

motivated to do would be to form the contact of Brown over the device of Sasaki such that the contact of Brown communicates with the bond pad of Sasaki.

Further, the result of combining the teachings of Sasaki and Brown would not have been the subject matter recited in independent claim 12 (*i.e.*, a contact that includes an intermediate layer positioned between a memory element including a phase change component and an insulator component of the contact, as well as a contact layer adjacent the insulator component and in electrical contact with the intermediate conductive layer). Rather, the result of combining Sasaki and Brown would be a memory device that includes a contact that communicates with a bond pad, which *bond pad* is *positioned between the contact and an upper electrode of a memory element* that includes a phase transition element. Accordingly, it is also respectfully submitted that there would have been no reasonable expectation that the combination of Sasaki and Brown would successfully result in a contact comprising the elements that are recited in independent claim 12.

For these reasons, it is respectfully submitted that a *prima facie* case has not been established as to the obviousness of independent claim 12, as proposed to be amended, and that, under 35 U.S.C. § 103(a), claim 12, as proposed to be amended, is therefore allowable over the combination of Sasaki and Brown.

Claims 13-19 are each allowable, among other reasons, as depending from claim 12, which is allowable.

Claim 16 is further allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer comprising a material that has a melting temperature that is greater than a temperature that will switch a phase change material from a first state to a second state.

Claim 17 is further allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer that may be formed from at least one of a refractory metal, a refractory metal nitride, and aluminum.

Claim 19 is additionally allowable because Sasaki and Brown, taken alone or in combination, both lack any teaching or suggestion of a contact that includes a contact layer that

comprises a material that has a melting temperature that is greater than a temperature required to switch a phase change material of a phase change component from a first state to a second state.

Independent claim 39, as proposed to be amended herein, recites an electrically erasable programmable memory device that comprises a memory element including an electrode and a memory cell, at least one of which comprises a phase change material. The device of claim 39, as proposed to be amended, also comprises a contact that includes an intermediate conductive layer contacting the memory element and in electrical and thermal communication therewith, an insulator component adjacent the intermediate conductive layer, and a contact layer adjacent the insulator component and in electrical communication with the intermediate conductive layer.

For the same reasons provided above with respect to independent claim 12, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to combine the teachings of Sasaki and Brown in the manner that has been asserted in the outstanding Office Action.

It is also respectfully submitted that, even if such a combination were made, Sasaki and Brown could not be successfully combined in a manner that would result in the electrically erasable programmable memory device recited in independent claim 39, as proposed to be amended. Specifically, such a device would include a bond pad between the phase change portion of the memory element and the intermediate conductive layer of the contact. Thus, the intermediate conductive layer could not be located adjacent to the memory element.

Thus, it is respectfully submitted that a *prima facie* case as to the obviousness of independent claim 39, as proposed to be amended, has not been established. Accordingly, it is respectfully submitted that, under 35 U.S.C. § 103(a), claim 39, as proposed to be amended, is allowable over the combination of Sasaki and Brown.

Each of claims 40-44 is allowable, among other reasons, as depending from claim 39, which is allowable.

Independent claim 45, as proposed to be amended herein, recites a semiconductor device that includes at least one contact. The at least one contact of claim 45, as proposed to be amended, includes, among other things, an intermediate conductive layer that contacts and which is in electrical and thermal communication with a structure of the semiconductor device that comprises a phase change component. The contact also includes an insulator component adjacent the intermediate conductive layer and a contact layer adjacent the insulator component and in electrical communication with the intermediate conductive layer.

It is respectfully submitted that, for the same reasons presented herein with respect to independent claim 12, one of ordinary skill in the art would not have been motivated by Sasaki, Brown, or the knowledge that was generally available in the art to combine the teachings of Sasaki and Brown in the asserted manner.

It is further submitted that, for the same reasons provided herein with respect to independent claims 12 and 39, even had one of ordinary skill in the art been motivated to combine the teachings of Sasaki and Brown, there would not have been a reasonable expectation that the combination could not have successfully resulted in the subject matter recited in independent claim 45, as proposed to be amended.

Accordingly, it is respectfully submitted that the Office has not met its burden of setting forth a *prima facie* case as to the obviousness of independent claim 45. Therefore, claim 45, as proposed to be amended, is allowable over the combination of Sasaki and Brown under 35 U.S.C. § 103(a).

Claims 46-54 are each allowable, among other reasons, as depending from claim 45, which is allowable.

In addition, claim 51 is allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer comprising a material that has a melting temperature that is greater than a temperature that will switch a phase change material from a first state to a second state.

Claim 52 is also allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer that may be formed from at least one of a refractory metal, a refractory metal nitride, and aluminum.

Claim 54 is additionally allowable because Sasaki and Brown, taken either alone or in combination, lack any teaching or suggestion of a contact that includes a contact layer that comprises a material that has a melting temperature that is greater than a temperature required to switch a phase change material of a phase change component from a first state to a second state.

Independent claim 56, as proposed to be amended herein, recites an enhanced electrically erasable programmable element. A contact of the enhanced electrically erasable programmable element includes an intermediate conductive element that contacts the electrically erasable programmable element and which is in electrical communication therewith, as well as an insulator component adjacent to the intermediate conductive element and an electrically conductive contact layer adjacent to the insulator component.

Again, independent claim 56, as proposed to be amended, is allowable because one of ordinary skill in the art would not have been motivated to combine the teachings of Sasaki and Brown in the asserted manner and, further, because there would have been no reasonable expectation of success had such a combination been made.

Therefore, the Office has not set forth a *prima facie* case as to the obviousness of independent claim 56, as proposed to be amended. Thus, under 35 U.S.C. § 103(a), claim 56, as proposed to be amended, is allowable over the combination of Sasaki and Brown.

Claims 57-66 are each allowable, among other reasons, as depending from claim 56, which is allowable.

Claim 63 is further allowable because neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer comprising a material that has a melting temperature that is greater than a temperature that will switch a phase change material of a contacted structure between a plurality of electrical conductivity states.

Claim 64 is additionally allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer that may be formed from at least one of a refractory metal, a refractory metal nitride, and aluminum.

Claim 66 is also allowable because Sasaki and Brown, taken alone or in combination, both lack any teaching or suggestion of a contact that includes a contact layer that comprises a material that has a melting temperature that is greater than a temperature required to switch a phase change material of a contacted structure between a plurality of states.

Claims 69 and 7 are allowable, among other reasons, as depending directly and indirectly, respectively, from claim 1, which is allowable.

Claim 69 is further allowable for the reasons provided herein with respect to independent claim 12: first, one of ordinary skill in the art would not have been motivated to combine the teachings of Sasaki and Brown in the asserted manner; and second, even if such a combination would have been made, there is no reason to expect that such a combination would have successfully resulted in the subject matter recited in claim 69.

Therefore, the Office has not met its burden of establishing a *prima facie* case as to the obviousness of claim 69.

In addition, claim 7 is allowable since neither Sasaki nor Brown, taken either alone or in combination, teaches or suggests a contact that includes an intermediate conductive layer comprising a material that has a melting temperature that is greater than a temperature that is required to switch a phase change component between a plurality of states.

Claim 71 is allowable as depending from allowable claim 32 and, further, for the reasons provided previously herein with respect to independent claim 12.

In view of the foregoing, it is respectfully submitted that each of claims 7, 12-19, 39-54, 56-66, 69, and 71 is allowable over the combination of Sasaki and Brown and it is accordingly requested that the Office withdraw the 35 U.S.C. § 103(a) rejections of each of these claims.

Sasaki in View of Brown and Further in View of Whitten

Claims 20, 55, and 67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasaki in view of Brown and in further view of Whitten.

It is respectfully submitted that claims 20, 55, and 67 are allowable, among other reasons, based on their respective dependencies from claims 12, 45, and 56, which are each allowable.

Accordingly, it is respectfully submitted that the 35 U.S.C. § 103(a) rejections of claims 20, 55, and 67 be withdrawn.

ENTRY OF AMENDMENTS

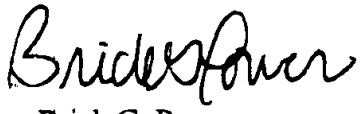
It is respectfully submitted that the amendments to the claims that are proposed herein be entered since they are supported by the as-filed specification and drawings and do not introduce new matter into the above-referenced application. Further, it is respectfully submitted that the proposed amendments to the claims would neither raise new issues nor require a further search.

If it is determined that the proposed amendments do not place the application in condition for allowance, entry thereof is respectfully requested upon filing of a Notice of Appeal herein.

CONCLUSION

It is respectfully submitted that each of claims 1-20 and 32-71 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication the above-referenced application has been passed for issuance. If any issues preventing the allowance of any of claims 1-20 and 32-71 remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully Submitted,



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BGP/hlg:djp
Enclosure: Version With Markings to Show Changes Made

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended three times) A contact for a semiconductor device, comprising:

an intermediate conductive layer [positioned adjacent to] contacting and in electrical communication with a structure located beneath a [bond pad-bearing surface of a] silicon-containing dielectric [oxide-containing protective] layer of the semiconductor device;

an insulator component positioned adjacent said intermediate conductive layer so as to at least thermally insulate said structure; and

an electrically conductive contact layer adjacent said insulator component and in communication with said intermediate conductive layer.

12. (Amended three times) A contact for a memory element of a semiconductor device, the memory element including a phase change component, the contact comprising:

an insulator component comprising a thermally and electrically insulative material;

an intermediate conductive layer adjacent said insulator component and [adjacent to] contacting and in electrical and thermal communication with the memory element; and

a contact layer adjacent said insulator component and in electrical contact with said intermediate conductive layer, said contact layer and said intermediate conductive layer substantially enveloping said insulator component.

32. (Amended three times) A contact for a semiconductor device including a contact layer and an intermediate conductive layer which partially contact one another and substantially envelop an insulator component, the contact [being positioned adjacent to] contacting a structure located beneath a [bond pad-bearing surface of a] silicon-containing dielectric [oxide-containing protective] layer of the semiconductor device so as to at least thermally insulate the structure, the contact fabricated by the process comprising:

forming the intermediate conductive layer on a surface of the semiconductor device and in electrical thermal communication with an active device region of the semiconductor device;

depositing a dielectric layer on the intermediate conductive layer;

patterning said dielectric layer to define the insulator component;

forming the contact layer substantially over an exposed area of the insulator component and in electrical communication with the intermediate conductive layer;

patterning the intermediate conductive layer; and

patterning the contact layer.

39. (Amended three times) An electrically erasable programmable memory device, comprising:

a memory element including an electrode adjacent a memory cell, at least one of said electrode and said memory cell comprising a phase change material; and

a contact including an intermediate conductive layer [positioned adjacent to] contacting and in electrical and thermal communication with said memory element, an insulator component adjacent said intermediate conductive layer, and a contact layer adjacent said insulator component and in electrical communication with said intermediate conductive layer.

45. (Amended three times) A semiconductor device including at least one contact, the at least one contact comprising:

an intermediate conductive layer [positioned adjacent to] contacting and in electrical and thermal communication with a structure of the semiconductor device comprising a phase change component;

an insulator component disposed adjacent said intermediate conductive layer; and

a contact layer adjacent said insulator component and in electrical communication with said intermediate conductive layer.

56. (Amended four times) An enhanced electrically erasable programmable element including a contact comprising:

an intermediate conductive layer [positioned adjacent to] contacting and in electrical communication with the electrically erasable programmable element;

an insulator component disposed adjacent said intermediate conductive layer and over the electrically erasable programmable element so as to insulate same; and

an electrically conductive contact layer adjacent said insulator component.

68. (Amended) The contact of claim 1, wherein at least one of said intermediate conductive layer and the electrically conductive contact layer abuts a major surface of said silicon-containing dielectric [oxide-containing protective] layer.

70. (Amended) The contact of claim 32, wherein at least one of said intermediate conductive layer and said contact layer abuts a major surface of said silicon-containing dielectric [oxide-containing protective] layer.